

1/4

SEQUENCE LISTING
(1) GENERAL INFORMATION:
(i) APPLICANT:  (A) NAME: CropDesign NV  (B) STREET: TechnologiePark Zwijnaarde 3  (C) CITY: Gent  (D) STATE: none  (E) COUNTRY: Belgium  (F) POSTAL CODE (ZIP): 9052
(ii) TITLE OF INVENTION: A novel mitogenic cyclin and uses thereof
(iii) NUMBER OF SEQUENCES: 4
(iv) COMPUTER READABLE FORM:  (A) MEDIUM TYPE: Floppy disk  (B) COMPUTER: IBM PC compatible  (C) OPERATING SYSTEM: PC-DOS/MS-DOS  (D) SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)
(2) INFORMATION FOR SEQ ID NO: 1:
(i) SEQUENCE CHARACTERISTICS:  (A) LENGTH: 927 base pairs  (B) TYPE: nucleic acid  (C) STRANDEDNESS: double  (D) TOPOLOGY: linear
(ii) MOLECULE TYPE: CDNA
(iii) HYPOTHETICAL: NO
(ix) FEATURE:  (A) NAME/KEY: CDS  (B) LOCATION:1927
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
ATG GCA GAG GAA AAT CTA GAA CTG AGT CTT TTA TGT ACA GAG AGC AAC  Met Ala Glu Glu Asn Leu Glu Leu Ser Leu Leu Cys Thr Glu Ser Asn  1 5 10 15
GTT GAT GAT GAG GGC ATG ATT GTT GAC GAA ACT CCG ATT GAA ATT TCG  Val Asp Asp Glu Gly Met Ile Val Asp Glu Thr Pro Ile Glu Ile Ser  20 25 30
ATT CCT CAG ATG GGT TTT TCT CAA TCG GAG AGT GAG GAG ATT ATC ATG  144  15  16  17  18  19  19  19  10  10  10  11  10  11  11

40 45 GAG ATG GTG GAG AAG GAG CAG CAT TTG CCA AGT GAT TAC ATC Glu Met Val Glu Lys Glu Lys Gln His Leu Pro Ser Asp Asp Tyr Ile 192 50 55 60

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AAG Lys 65	Arg	CTI Leu	AGA Arg	AGT Ser	GGA Gly 70	GAT Asp	TTG Leu	GAT Asp	TTG Leu	AAT Asn 75	Val	GGA Gly	AGA Arg	AGA Arg	GAT Asp 80	240
GCC Ala	CTC Leu	AAT Asn	TGG Trp	ATT Ile 85	TGG Trp	AAG Lys	GCT Ala	TGT Cys	GAA Glu 90	GTA Val	CAC His	CAG Gln	TTT Phe	GGA Gly 95	CCA Pro	288
TTG Leu	TGT Cys	TTT Phe	TGC Cys 100	TTA Leu	GCA Ala	ATG Met	AAC Asn	TAC Tyr 105	TTG Leu	GAT Asp	CGA Arg	TTC Phe	TTA Leu 110	TCG Ser	GTT Val	336
CAT His	GAT Asp	TTG Leu 115	CCT Pro	AGT Ser	GGC Gly	AAA Lys	GGT Gly 120	TGG Trp	ATA Ile	TTG Leu	CAG Gln	TTG Leu 125	TTG Leu	GCT Ala	GTG Val	384
GCT Ala	TGT Cys 130	TTA Leu	TCA Ser	TTG Leu	GCA Ala	GCC Ala 135	AAA Lys	ATT Ile	GAA Glu	GAA Glu	ACT Thr 140	GAA Glu	GTT Val	CCA Pro	ATG Met	432
TTG Leu 145	ATA Ile	GAT Asp	CTT Leu	CAG Gln	GTT Val 150	GGA Gly	GAT Asp	CCT Pro	CAG Gln	TTT Phe 155	GTG Val	TTT Phe	GAG Glu	GCT Ala	AAA Lys 160	480
TCA Ser	GTC Val	CAA Gln	AGA Arg	ATG Met 165	GAG Glu	CTT Leu	TTG Leu	GTG Val	TTG Leu 170	AAC Asn	AAA Lys	TTG Leu	AAA Lys	TGG Trp 175	AGA Arg	528
TTG Leu	AGA Arg	GCA Ala	ATA Ile 180	ACT Thr	CCA Pro	TGC Cys	TCA Ser	TAC Tyr 185	ATA Ile	AGA Arg	TAT Tyr	TTC Phe	CTG Leu 190	AGA Arg	AAG Lys	576
ATG Met	AGT Ser	AAA Lys 195	TGT Cys	GAT Asp	CAA Gln	GAA Glu	CCA Pro 200	TCC Ser	AAC Asn	ACA Thr	TTG Leu	ATA Ile 205	TCT Ser	AGA Arg	TCA Ser	624
TTA Leu	CAA Gln 210	GTG Val	ATA Ile	GCC Ala	Ser	ACA Thr 215	Thr	AAA Lys	GGT Gly	Ile	GAC Asp 220	TTT Phe	TTG Leu	GAG Glu	TTT Phe	672
AGA Arg 225	CCT Pro	TCT Ser	GAA Glu	GCT Ala	GCT Ala 230	GCT Ala	GCT Ala	GTG Val	GCA Ala	CTT Leu 235	TCT Ser	GTT Val	TCT Ser	GGA Gly	GAA Glu 240	720
TTG Leu	CAG Gln	AGA Arg	GTA Val	CAC His 245	TTT Phe	GAC Asp	AAC Asn	TCT Ser	TCC Ser 250	TTC Phe	TCT Ser	CCT Pro	CTT Leu	TTC Phe 255	TCA Ser	768
CTA Leu	CTT Leu	CAA Gln	AAG Lys 260	GAG Glu	AGA Arg	GTG Val	Lys	AAG Lys 265	ATA Ilė	GGG Gly	GAA Glu	ATG Met	ATA Ile 270	GAG Glu	AGT Ser	816
GAT Asp	Gly	TCA Ser 275	GAC Asp	TTA Leu	TGT Cys	TCA Ser	CAA Gln 280	ACA Thr	CCC Pro	AAT Asn	GGG Gly	GTT Val 285	TTA Leu	GAA Glu	GTA Val	864
TCG	GCT	TGT	TGT	TTC	AGC	TTT	AAG	ACC	CAT	GAT	TCT	TCT	тст	TCT	TAT	912

Ser Ala Cys Cys Phe Ser Phe Lys Thr His Asp Ser Ser Ser Tyr 290 295 300

ACA CAT CTT TCT TAA Thr His Leu Ser \* 305

927

- (2) INFORMATION FOR SEQ ID NO: 2:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 308 amino acids
    - (B) TYPE: amino acid
    - (D) TOPOLOGY: linear
  - (ii) MOLECULE TYPE: protein
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

Met Ala Glu Glu Asn Leu Glu Leu Ser Leu Leu Cys Thr Glu Ser Asn
1 5 10 15

Val Asp Asp Glu Gly Met Ile Val Asp Glu Thr Pro Ile Glu Ile Ser 20 25 30

Ile Pro Gln Met Gly Phe Ser Gln Ser Glu Ser Glu Glu Ile Ile Met 35 40 45

Glu Met Val Glu Lys Glu Lys Gln His Leu Pro Ser Asp Asp Tyr Ile 50 55 60

Lys Arg Leu Arg Ser Gly Asp Leu Asp Leu Asn Val Gly Arg Arg Asp 65 70 75 80

Ala Leu Asn Trp Ile Trp Lys Ala Cys Glu Val His Gln Phe Gly Pro 85 90 95

Leu Cys Phe Cys Leu Ala Met Asn Tyr Leu Asp Arg Phe Leu Ser Val

His Asp Leu Pro Ser Gly Lys Gly Trp Ile Leu Gln Leu Leu Ala Val

Ala Cys Leu Ser Leu Ala Ala Lys Ile Glu Glu Thr Glu Val Pro Met 130 135 140

Leu Ile Asp Leu Gln Val Gly Asp Pro Gln Phe Val Phe Glu Ala Lys
145 150 155 160

Ser Val Gln Arg Met Glu Leu Leu Val Leu Asn Lys Leu Lys Trp Arg 165 170 175

Leu Arg Ala Ile Thr Pro Cys Ser Tyr Ile Arg Tyr Phe Leu Arg Lys
180 185 190

Met Ser Lys Cys Asp Gln Glu Pro Ser Asn Thr Leu Ile Ser Arg Ser 195 200 205



Leu Gln Val Ile Ala Ser Thr Thr Lys Gly Ile Asp Phe Leu Glu Phe 210 215 220

Arg Pro Ser Glu Ala Ala Ala Ala Val Ala Leu Ser Val Ser Gly Glu 225 230 235 240

Leu Gln Arg Val His Phe Asp Asn Ser Ser Phe Ser Pro Leu Phe Ser 245 250 255

Leu Leu Gln Lys Glu Arg Val Lys Lys Ile Gly Glu Met Ile Glu Ser
260 265 270

Asp Gly Ser Asp Leu Cys Ser Gln Thr Pro Asn Gly Val Leu Glu Val 275 280 285

Ser Ala Cys Cys Phe Ser Phe Lys Thr His Asp Ser Ser Ser Tyr 290 295 300

Thr His Leu Ser \* 305

- (2) INFORMATION FOR SEQ ID NO: 3:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 25 base pairs
    - (B) TYPE: nucleic acid
    - (C) STRANDEDNESS: single
    - (D) TOPOLOGY: linear
  - (ii) MOLECULE TYPE: other nucleic acid
    - (A) DESCRIPTION: /desc = "oligonucleotide"
  - (iii) HYPOTHETICAL: YES
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

GAACACTCGA GTGTAATGGC AGAGG

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- (2) INFORMATION FOR SEQ ID NO: 4:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 26 base pairs
    - (B) TYPE: nucleic acid
    - (C) STRANDEDNESS: single
    - (D) TOPOLOGY: linear
    - (ii) MOLECULE TYPE: other nucleic acid
      - (A) DESCRIPTION: /desc = "oligonucleotide"
  - (iii) HYPOTHETICAL: YES
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

CATCATACTA GTTATAATAA TGTAAG